IN THE SPECIFICATION

Please replace the paragraph beginning at page 1, line 13, as follows:

--In integrated circuit fabrication, semiconductor, dielectric, and conductor materials are deposited on a substrate and etched to form patterns of gates, vias, contact holes, or interconnect lines. The layers typically are deposited by chemical vapor deposition, physical vapor deposition, or thermal oxidation processes. In integrated circuit fabrication, it is desirable to have a metrology system integrated with the fabrication equipment in order to monitor the fabrication of the devices. An example of such a metrology system is an endpoint detection method and apparatus that terminates a semiconductor process as soon as the desired thickness of a layer being processed on the substrate is achieved, and without damaging the underlying layers. Another example of a metrology system is an optical critical measurement (CD) apparatus.--

Please replace the paragraph beginning at page 3, line 2, as follows:

--The present invention provides an apparatus and method for stabilizing pulse light intensity from a pulse light for a metrology system, such as an endpoint detection or CD measurement system. Specifically, the present invention provides a stabilized pulse light drive circuit for a semiconductor metrology system, including a pulse light source, an energy source connected to the pulse light source, and a light detector positioned to receive pulse light from the pulse light source. A pulse light drive circuit according to the invention also includes a feedback signal processing circuit that compares a desired light intensity level with the detected preset light intensity level fed back from the light detector. A cut-off switch cuts off energy to the pulse light source after the light detector detects a predetermined pulse light intensity level.--

Please replace the paragraph beginning at page 3, line 13, as follows:

--With the method and apparatus of the invention as disclosed, a pulsed flash light drive circuit is modified to cut off the pulse prematurely when a preset amount of light is detected. The same preset amount of light will be produced for each pulse, eliminating the usual 1-3% variation in light output (pulse-to-pulse) seen in conventional light systems. A

wavelength selective element can be added to the light detector ~~sensor~~ to provide greater stability at a specific wavelength band when desired.--

Please replace the paragraph beginning at page 5, line 16, as follows:

--Process reactor 10 is illustrated for the purpose of showing how the drive circuit of the present invention is applied in association with a semiconductor metrology apparatus, such as, metrology ~~endpoint detection~~ system 90 for detecting an endpoint of a process being performed in process reactor 10. Other metrology systems, such as, for example, a CD measurement system, have generally the same structure. In this example, the metrology system 90 comprises a pulse light source 40 and drive circuit 50 for emitting a light beam, a radiation sampler 30 for positioning and/or filtering an incident light beam onto the substrate surface and directing incident light onto a light detector 20 that measures an intensity of a reflected light beam that is reflected from the substrate surface. Light detector 20 is schematically illustrated as being located outside process reactor 10 but could also be positioned within process reactor 10 as well. An energy source 70 is schematically illustrated, connected to light source 40 and a computer system 60. Computer system 60 calculates and stores portions of the real-time measured waveform spectra of light reflected from the layer being processed on the substrate and adjusts process conditions in process reactor 10, accordingly.--

Please replace the paragraph beginning at page 8, line 12, as follows:

--Signal processing circuit 207 includes a signal integrator 207a and a capacitor 207b, which acts as a charge amplifier. The light intensity signal entering signal processing circuit 207 is amplified and integrated, and is sent to the threshold comparator 205. Threshold comparator 205 compares the integrated intensity value from processing circuit 207 with a predetermined integrated light intensity value provided through line 206. When the integrated intensity value is substantially the same as the predetermined integrated light intensity value, a signal is sent to trigger cut-off switch 203. Trigger cut-off switch 203 cuts off power to pulse light 201, thereby truncating the light pulse emitted from pulse light 201. Truncation of the light pulse based on the comparison of integrated

light intensity and a predetermined integrated intensity reduces light intensity variations on a pulse-by-pulse basis.--

Please replace the paragraph beginning at page 8, line 24, as follows:

--FIG. 4 illustrates a second embodiment of a stabilized pulse light drive circuit 300 according to the invention. Pulse light drive circuit 300 includes a pulse light 301 connected to a power source (such as energy source ~~80~~ 70 as schematically shown in FIG. 1) through a shut off switch 302. As a series of lower intensity level light pulses are emitted from pulse light 301, light detector 304 detects them. Light detector 304 again can use an optional filter element (not shown). Light entering light detector 301 is converted into a light intensity ~~signals~~ signal that is sent to an integrator/comparator 308. Integrator/comparator 308 integrates the light intensity signals. The integrated light intensity values are compared to a predesired integrated light intensity value stored in computer 60 (FIG.1). When the result of the comparison is that the signals are substantially the same, switch 302 is ~~closed~~ opened and pulse light 301 stops emitting light pulses.--